

# ***Demographic and Socioeconomic Change in Appalachia***

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## **CHANGING PATTERNS OF POVERTY AND SPATIAL INEQUALITY IN APPALACHIA**

by

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# CHANGING PATTERNS OF POVERTY AND SPATIAL INEQUALITY IN APPALACHIA

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## Introduction

The 1990s were marked by unusually rapid fluctuations in the size of the poor population in the United States (Lichter and Crowley 2002). Indeed, nearly 40 million Americans were poor as recently as 1994. Yet by the end of the decade, the number of poor people in the United States had declined to roughly 32 million according the U.S. Census Bureau, a number that was little different from the beginning of the decade (Danziger and Gottschalk 2004). The good news, if there is any, is that the percentage of America's people in poverty—11.3 percent—was lower than any other time since the late 1970s.<sup>1</sup>

The rapid declines in America's poverty rate during the last half of the decade presumably reflected several factors: the long economic expansion of the 1990s, which fueled unprecedented job growth and low unemployment (Iceland 2003); the effects of the Earned Income Tax Credit (EITC) in lifting the working poor from poverty; and new welfare reform legislation that has emphasized “work first” and placed strict time limits on the receipt of cash public assistance.

Economic growth and declining poverty rates, however, have not been uniform across the United States. As we document in this report, the Appalachian region—which has a longstanding

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<sup>1</sup>The official poverty rate compares families' pre-tax cash income to poverty thresholds that were adopted by the Social Security Administration in 1965 and which are updated each year for changes in the cost of living.

history of economic stagnation, job loss (especially in extractive industries), and poverty—tells a story of economic winners and losers (McLaughlin et al. 1999). Whether inequality in Appalachia can be characterized in such stark terms is an empirical question. As with the nation as a whole, did Appalachia experience declines in poverty rates during the 1990s? If so, were declines in poverty restricted to some population groups or regions of Appalachia? Or were the people of Appalachia—or some segments of the Appalachian population—“left behind” during the recent economic boom? This report addresses such questions about the extent of socioeconomic inequality and poverty in Appalachia during the economic boom period of the 1990s. The goal is to provide a first look at Appalachian poverty based on new data from the 2000 decennial census.

Our statistical portrait of poverty in Appalachia focuses on changing rates of poverty along several important dimensions: age, education, race and ethnicity, labor force participation, and family structure. Where relevant, we also compare residents of Appalachia to residents of the non-Appalachia United States. We highlight significant geographic differences within Appalachia by contrasting recent poverty trends in the various regions of Appalachia (i.e., Northern, Central and Southern); in rural and urban areas; and across counties with different histories of economic distress and development (i.e., the Appalachian Region Commission’s typology of distressed, transitional, competitive, and attainment counties). As defined by the Appalachian Regional Commission, the Appalachia region includes almost 23 million people in

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In 2000, a two-parent, two-child family would need just \$17,463 to be counted among the nonpoor. By contrast, the median family income in 2000 was \$50,891.

13 different states and 410 counties, the majority of which (301 out of 410) are classified as non-metropolitan in 2000.

### **Poverty in America: The Big Picture**

The 1990s ushered in a changing profile of America's poor while also raising new public policy questions and concerns about the adequacy of America's safety net for some groups. As Danziger and Gottschalk (2004) suggest, the common aphorism in the 1960s and 1970s that "a rising tide lifts all boats" has been replaced by "uneven tides," characterized by the diverging fortunes of people and places. The welfare poor, for example, were replaced in the 1990s with a growing share of working poor (Lichter and Crowley 2002; Shipler 2004). Indeed, earnings from work replaced government cash assistance during the decade as the single largest share of income among the poor. A growing fraction of all poor people, including single mothers, became part of the paid labor force. In addition, family change—especially the rise in single parent families—slowed significantly in the 1990s and was no longer giving demographic impetus to rising poverty among America's children (Iceland 2004). The 1990s was also a period of growing income inequality, as income growth accelerated rapidly among American families at the top of the income distribution while the income of those at the bottom stagnated. In 1979, for example, the income of families at the 90<sup>th</sup> percentile was 6.8 times the poverty threshold; 20 years later, this figure had risen to 9.5 times the poverty threshold (Danziger and Plotnick 2004). For families at the 10<sup>th</sup> percentile, however, family income changed little as a percentage of the poverty threshold over the same period (from 0.9 in 1979 to 1.0 in 1999). Indeed, the average

income of poor families changed little over these 20 years, remaining at roughly one-half the income poverty threshold (Lichter and Crowley 2002).

Not surprising, the 1990s brought new concerns that economic growth and declining poverty rates were unevenly distributed across the United States. Indeed, growing income inequality has manifested itself in many other dimensions of everyday life. For example, the growing gap between rich and poor has exacerbated differences in family and fertility patterns, access to good schools, wealth and assets, health care and insurance, and political participation (Neckerman 2004). Income inequality has also contributed to growing economic balkanization across geographic space (Lobao 2003). As we argue here, growing income equality also has a geographic dimension; individual fortunes are tied closely to fortunes of the communities or regions in which they live and work. This axiom is true in Appalachia, just as it is true in the rest of the nation. The 1990s brought increasing attention to America's bicoastal economic boom, while middle America and rural areas continued in the decade to face economic stagnation and job loss. The so-called "rust belt" implies declining employment in the manufacturing sector. Other historical distressed regions such as Appalachia, the "Black Belt" crescent (extending from Mississippi to North Carolina), and Indian reservations remain largely outside the economic and cultural mainstream. America's economic landscape may be increasingly characterized by economic "winners" and "losers," as local and regional economics have responded or failed to respond successfully to globalization and unprecedented competition in labor and consumer markets (Danziger and Plotnick 2004).

## **Poverty in Appalachia—Is the Past Prelude?**

President Lyndon B. Johnson began the “War on Poverty” in an Appalachian county in West Virginia in 1964, at a time when poverty rates in some parts of Appalachia exceeded rates for the nation by two or three times. But simple statistical comparisons based on the official poverty rates cannot adequately portray the long history of economic deprivation in Appalachia. Poverty in rural Appalachia cannot be measured simply by comparing family income to some arbitrary income cutoff. The low income of the people and communities in Appalachia manifests itself in many ways: in dilapidated and crowded housing; a lack of plumbing and clean running water; limited access to public utilities, social services, and medical care; geographic isolation born of poor transportation systems; and inadequately staffed and poorly funded schools. Not surprisingly, poverty in the region has often run in families—passed along successive generations connected by the common threads of low education, few job skills, and the lack of good jobs.

***Poverty Trends in Appalachia.*** Fortunately, these common stereotypes of chronic poverty in Appalachia seem to have changed during the 1990s. As shown in Table 1 (page 6), the poverty rate in Appalachia declined by nearly two percentage points, from 15.4 percent in 1990 to 13.6 percent in 2000. More than 100,000 fewer people in Appalachia lived in poverty at the end of the 1990s than at the beginning. Over the same period, the poverty rate in the rest of the nation decreased from 12.9 percent in 1990 to 12.3 percent in 2000. Not only did poverty rates in Appalachia decline during the 1990s, but Appalachian poverty rates converged with the rest of the country.

To be sure, poverty rates may mask significant differences between Appalachia and the rest of the nation in “deep poverty”; at the other end of the socioeconomic ladder, they may also misrepresent the level of economic “comfort” in a given population. Deep poverty rates are defined

**Table 1**  
**Number and percent in poverty, United States, Appalachia, and non-Appalachian United States, 1990 and 2000**

YEAR		UNITED STATES TOTAL	APPALACHIA	NON-APPALACHIAN UNITED STATES
1990	Number (1000s)	31,743	3,133	28,610
	Percent of total population	13.1	15.4	12.9
2000	Number (1000s)	33,900	3,031	30,869
	Percent of total population	12.4	13.6	12.3

**Source: U.S. Census Bureau, 1990 and 2000 censuses.**

by the percentage of families with incomes that fall below one-half the poverty income threshold. Rates of economic comfort are measured generously as the percentage of families with incomes of more than twice the poverty income threshold. As the results in Table 2 (page 7) suggest, the percentages of population that are in deep poverty are very similar in Appalachia and non-Appalachia United States (i.e., 5.8 percent and 5.6 percent, respectively). These percentages account for roughly that same percentages of the poor population within and outside of Appalachia. And while more than 70 percent of the non-Appalachian population lives in “comfort,” the figure is nearly as high in Appalachia (66 percent). Clearly, in the aggregate, rates of poverty and comfort are surprisingly similar between Appalachia and the rest of the country. This parity is seemingly a significant departure from historic patterns.

Of course, the decennial census data used here do not pick up the effects of the economic recession after 2000. For three straight years from 2000 to 2003, the national poverty rate has increased from 11.3 percent to 12.5 percent (DeNavas-Walt, Proctor and Mills 2004). The number of persons in poverty in the United States also has increased from 31.6 million in 2000 to 35.9 million in 2003 (DeNavas-Walt et al. 2004). Given these recent trends in national data, it remains to be seen



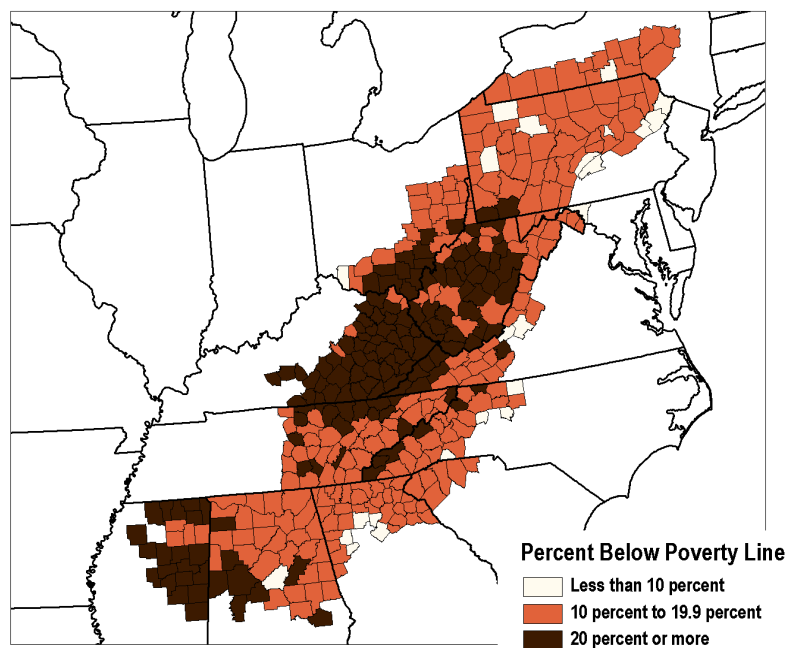
**Table 2**  
**Percent of persons in deep poverty and economic comfort, United States, Appalachia, and non-Appalachian United States, 2000**

	UNITED STATES TOTAL		APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
Deep Poverty	15,337	5.6	1,279	5.8	14,058	5.6
Comfort	192,687	70.3	14,721	66.3	177,967	70.7

NOTE: A family in “deep poverty” has an income below one-half the poverty income threshold. A family in economic “comfort” has an income more than twice the poverty income threshold.

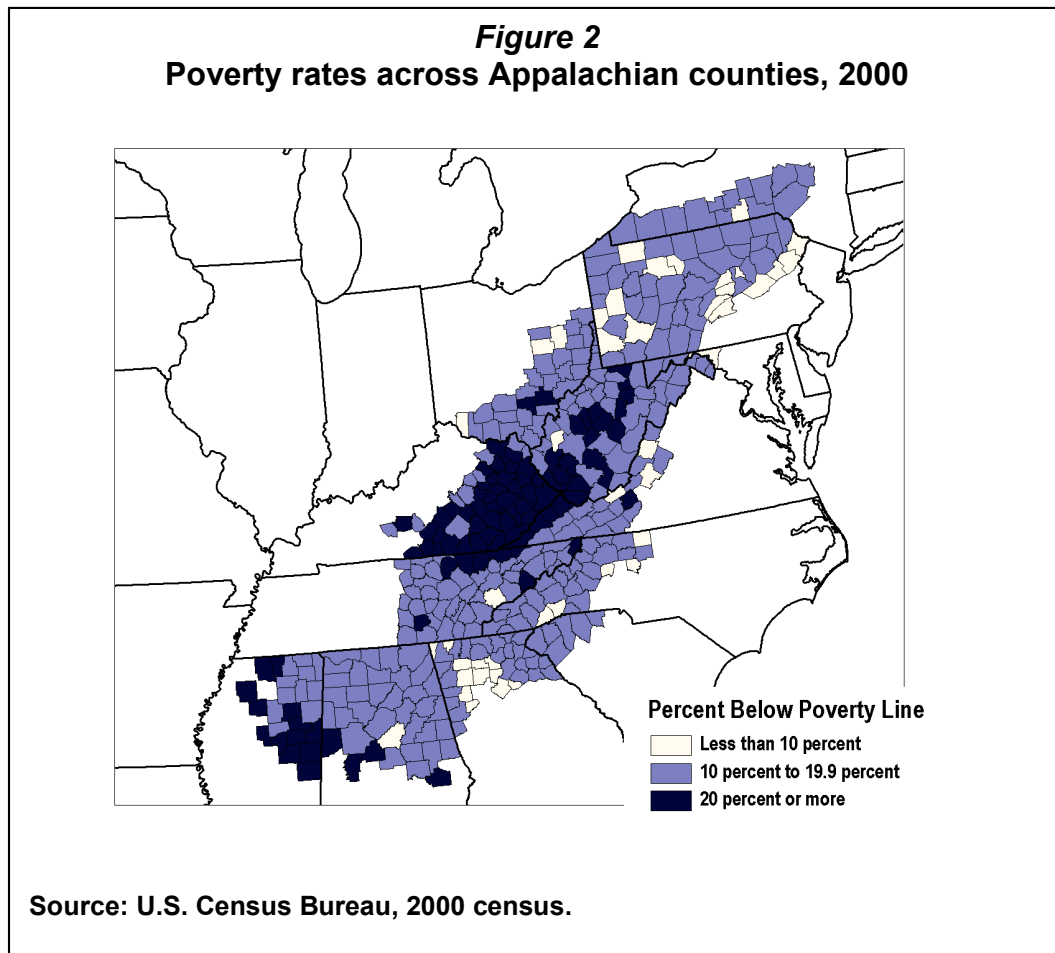
Source: U.S. Census Bureau, 2000 census.

**Figure 1**  
**Poverty rates across Appalachian counties, 1990**



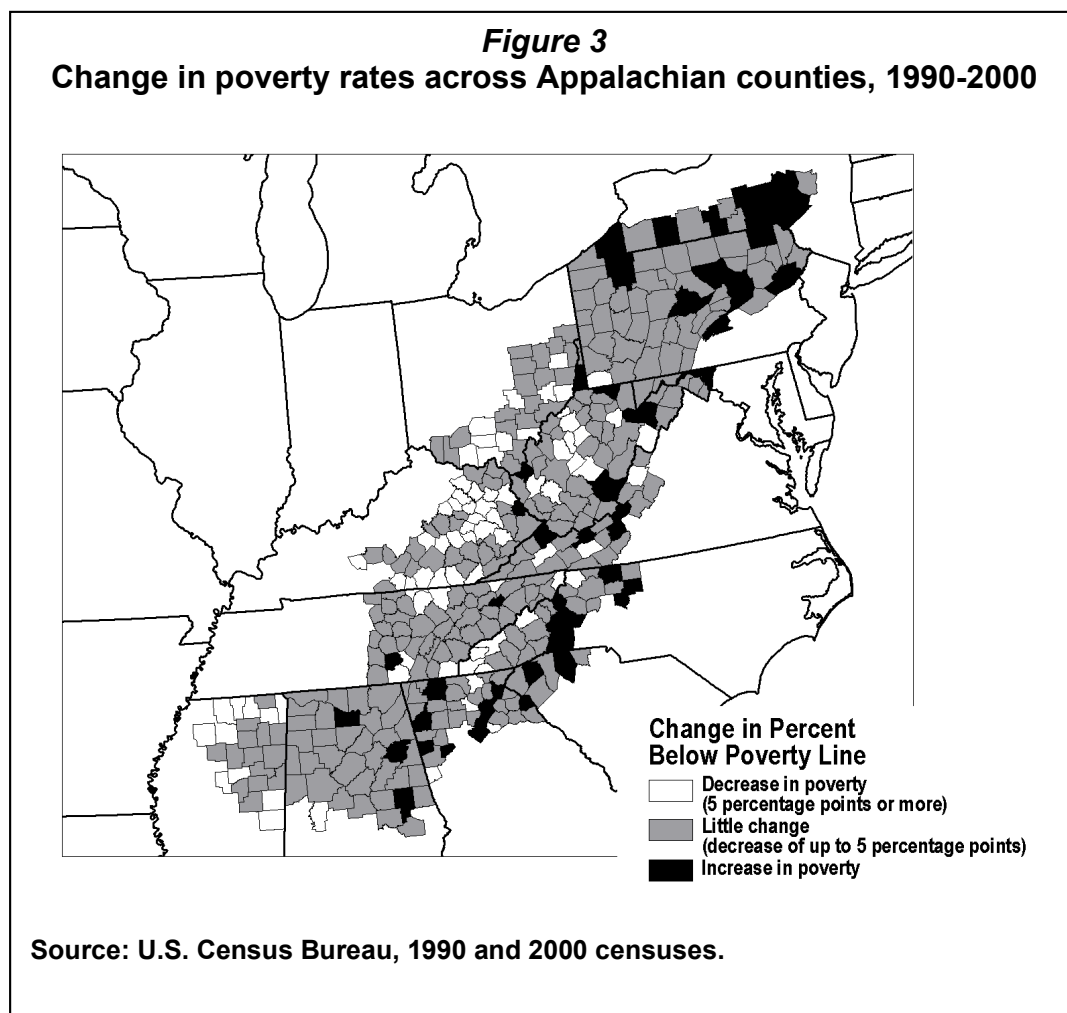
Source: U.S. Census Bureau, 1990 census.

whether the economic gains made by Appalachia during the 1990s will persist into the future or return to levels observed before the 1990s economic boom.



***Geographic Variation in Poverty.*** Broad generalizations, of course, may hide large or even growing geographic disparities within Appalachia. Some part of Appalachia may be left behind in the new economy. Yet, based on our data, this scenario does not appear to be the present case. While the northern and southern subregions of Appalachia had significantly lower rates of poverty than central Appalachia (12.8 percent versus 21.1 percent), all three subregions experienced declining poverty rates during the 1990s. Still, central Appalachia had a poverty rate that was nearly twice the

rate for the rest of the nation in 2000. Geographic variation and change in poverty can be observed in Figures 1 and 2 (pages 7 and 8, respectively), which shows county-to-county variation in high poverty rates (i.e., rates over 20 percent) in 1990 and 2000. The number of high poverty counties in the region declined from 152 in 1990 to 92 in 2000. On a percentage point, these declines were most rapid in the Central subregion, which historically has had some of the most economically depressed counties in Appalachia (Figure 3).



For the nation as a whole, poverty rates in rural regions, states, and counties have been higher than rates in metropolitan areas historically, especially in areas outside of central cities (i.e., suburbs and exurbs). In fact, recent data from the Census Bureau's Current Population Survey indicated that Louisiana, West Virginia, Mississippi, and New Mexico—all largely rural states—had the highest state poverty rates in 1999. Nonmetro poverty in 2000 also exceeded metropolitan rates for the same year—13.4 percent compared with 10.8 percent (Lichter and Crowley 2002).

A similar pattern of differential nonmetro poverty is revealed in Appalachia (see Table 3). In the aggregate, the 301 nonmetro counties in Appalachia experienced declining poverty in the 1990s, albeit rates of poverty remained higher in these counties in both 1990 and 2000 than in their 109 metropolitan regional counterparts. Moreover, the extent of economic deprivation in nonmetro Appalachia exceeded nonmetro poverty rates for the nation. The ratio of Appalachia-to-non-Appalachian poverty rates also was much greater in nonmetro areas than in metro areas. Rural

**Table 3**  
**Percent of persons in poverty, Appalachia, by sub-region, metropolitan status, and economic distress code, 1990 and 2000**

AREA		1990	2000
Sub-Region	Northern Appalachia	14.1	12.8
	Central Appalachia	25.9	22.1
	Southern Appalachia	14.4	12.8
Metropolitan Status	Metropolitan	12.8	11.6
	Nonmetropolitan	18.9	16.4
Economic Distress Code	Distressed counties	27.4	23.1
	Transitional counties	14.7	13.3
	Competitive counties	10.1	10.0
	Attainment counties	10.3	9.7

**Source: U.S. Census Bureau, 2000 census.**

Appalachians experienced a rate of poverty that was 40 percent higher than the rate in metro Appalachia in 2000. For the nation as a whole, nonmetro poverty was roughly 25 percent higher than poverty in metropolitan areas.

In Table 3 (page 10), we also evaluate geographic disparities in poverty among Appalachian counties classified according to the Appalachian Regional Commission's distress code. Distressed counties include counties with high unemployment rates, low income, and poverty rates exceeding 150 percent of the U.S. average (McLaughlin et al. 1999). The link between poverty and economic underdevelopment is unmistakable. Distressed counties in Appalachia continued to have exceptionally high poverty rates (23.1 percent) in 2000, a figure well in excess of regional and national averages. On a positive note, the poverty rates in distressed counties declined by more than four percentage points during the 1990s.

***Poverty Concentration.*** In America's largest cities, the 1980s brought significant increases in the concentration of neighborhood poverty. Growth in the "urban underclass" reflects the increasing percentage of high poverty neighborhoods and the growing share of poor people who live in them. Racial and ethnic minorities disproportionately comprise these neighborhoods. Two new reports based on neighborhood data from the 2000 decennial census indicate that the concentration of urban neighborhood poverty in the United States slowed or even reversed in the 1990s (Kingsley and Pettit 2003; Jargowsky 2003).

Poverty is distributed unevenly across the geographic landscape (Weber and Jensen 2004). History tells us that poverty has also been highly concentrated in distressed counties in Appalachia, especially in rural parts of the central sub-region. In this report, we consider a measure of poverty concentration based on the index of dissimilarity, which indicates the minimum proportion of the

poor who would have to move to a different county in order for the poor to be distributed evenly across Appalachia.<sup>2</sup> The index varies between 0 and 100, where a value of 0 shows no concentration and a value of 100 indicates complete concentration.

**Table 4**

**Poverty concentration and poverty segregation indices, Appalachia and non-Appalachian United States, 1990 and 2000**

<b>CONCENTRATION INDICIES</b> (0=Lowest, 100=Highest)				
<b>Year</b>	<b>Appalachia</b>		<b>Non-Appalachian United States</b>	
	<i>Concentration of Poor</i>	<i>Concentration of Nonpoor</i>	<i>Concentration of Poor</i>	<i>Concentration of Nonpoor</i>
1990	30	38	64	69
2000	31	37	66	68

<b>POOR-NONPOOR SEGREGATION INDICES</b> (0=Lowest, 100=Highest)		
<b>Year</b>	<b>Appalachia</b>	<b>Non-Appalachian United States</b>
1990	17	21
2000	15	20

**Source: U.S. Census Bureau, 1990 and 2000 censuses.**

Table 4 demonstrates that the poor are slightly less concentrated than the nonpoor in Appalachia, both in 1990 and 2000. In 2000, 31 percent of the Appalachian poor would have to

<sup>2</sup> Formally, the concentration index at time  $t$ ,  $C_t$ , is calculated as:

$$C_t = \frac{1}{2} \sum_{i=1}^n |P_{ti} - L_{ti}|,$$

where  $P_{ti}$  is the percentage of Appalachia's poor in county  $i$  and  $L_{ti}$  is the percentage of Appalachia's land area in county  $i$ . Poverty concentration is thus measured by comparing the distribution of poor people across Appalachian counties with the distribution of land areas.

move to another county in order to give all Appalachian counties the same percentage of poor people. Clearly, poverty is highly dispersed in Appalachia, largely reflecting its rural character. In contrast, poverty concentration (and population generally) is much more spatially concentrated outside of Appalachia, reflecting the fact that the poor are disproportionately concentrated in urban areas.

Table 4 (page 12) also provides the poor-nonpoor segregation index across counties. This index compares the distribution of poor people across counties with the distribution of nonpoor people. If the poor and nonpoor are distributed similarly across counties, then the percentage poor in each county would be equal to the overall Appalachia percentage poor. Any deviation from equal percentages across counties obviously suggests some unevenness in the distribution of poor and nonpoor people. As the data in Table 4 suggest, only 15 percent of poor people in Appalachia in 2000 would have to move to another county in order to achieve the same poverty rate in each county. This percentage represents a slight decline from the levels of 1990 and is lower than the poor-non-poor segregation index outside of Appalachia. Clearly, at the county level, there is significant blending of the poor and nonpoor populations across geographic space in the region.

To place these levels of county segregation in perspective, they can be compared with neighborhood segregation of the poor within some selected Appalachian cities. Illustrative data are available from the Mumford Center at the University at Albany, State University of New York. Here the poor are defined by family incomes of less than \$30,000 in 2000, the middle class includes persons in families with incomes between \$30,000 to \$59,999, and the affluent includes persons in families with incomes exceeding \$60,000. In Cortland, N.Y., a small metropolitan city

in Central New York State, the neighborhood segregation index in 2000 between the poor and the affluent was 28, up from 20 in 1990. In Pittsburgh, Pa., the poor-affluent segregation index was 34, only slightly lower than it was in 1990. Moreover, the Pittsburgh poor were also much more segregated from the middle class (23 in 1990 and 20 in 2000) than was the case in Cortland (9 in 1990 and 8 in 2000). These figures for Pittsburgh also are very similar to those observed in Wheeling, W. Va., where 32 percent of the poor would have to move to affluent neighborhoods in order for the poor and affluent to be distributed equally across neighborhoods. Clearly, these city-level figures are higher than those observed at the county level, which can hide the extent of segregation among the poor living in its various communities and neighborhoods.

### **Demographic Differentials in Poverty**

The uneven economic fortunes of different geographic parts of Appalachia go hand-in-hand with parallel patterns of economic inequality among the different population groups living in these different geographic categories. In this section we examine how poverty rates in 2000 differ across age, race, and family type in Appalachia and the rest of the nation.

***Age Differences in Poverty.*** The poverty rate for children exceeds that of any other age group, although it has fluctuated since 1959, the first year for which national data are available. The U.S. child poverty rate was at its highest in 1959 (about 27 percent), declining steadily and remaining relatively stable through the 1970s at about 16 percent (DeNavas-Walt et al. 2004). Between 1979 and 1982, the poverty rate for children increased from about 16 percent to about 22 percent, fell slightly during the 1980s, and rose again to nearly 23 percent in 1993. For the nation, the late 1990s marked a dramatic and unprecedented change in the economic fortunes of



America's children (Lichter and Crowley 2004). Indeed, by the end of 1990s, the poverty rate among children was its lowest since the late 1970s (16.6 percent), but nevertheless remained higher than rates for the elderly (8.5 percent among those ages 65 to 74 and 11.5 percent among those age 75 and older) as well as for the nation's population as a whole (12.4 percent) (Bishaw and Iceland 2003). For America's seniors, poverty rates have declined substantially and steadily since 1965, when nearly 30 percent of the elderly lived in poverty. Poverty rates across the country for those age 65 and older have hovered between 10 percent and 13 percent in the last 20 years (DeNavas-Walt et al. 2004).

These striking U.S. age patterns of poverty in 2000 were much the same in Appalachia (Table 5). Indeed, poverty rates among children and adults (ages 18-64) were only slightly higher in Appalachia than the rest of the nation. The largest disparity from the rest of the nation occurred among the elderly (12.0 percent versus 9.6 percent), a poverty difference of 2.4 percentage points. Still, like the nation as a whole, poverty rates among the Appalachia elderly were lower than for most other age groups.

**Table 5**  
**Persons in poverty by age, United States, Appalachia, and non-Appalachian United States, 2000**

AGE GROUP	UNITED STATES TOTAL		APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
Under age 18	11,747	16.6	944	17.7	10,803	16.5
Ages 18 to 64	18,865	11.1	1,713	12.5	17,152	11.0
Ages 65 and over	3,288	9.9	374	12.0	2,914	9.6

**Source: U.S. Census Bureau, 2000 census.**

***Race Differences in Poverty.*** The 2000 census revealed that the poverty rate among African Americans (24.9 percent) was about three times greater than among non-Hispanic whites (8.1 percent) (Bishaw and Iceland 2003). In Appalachia, the poverty rate among Blacks was 27 percent, compared with 12.1 percent among non-Hispanic whites (Table 6). If poverty is our measure of well-being, racial and ethnic inequality clearly persists in Appalachia. These data also indicate that the poverty rates of each racial and ethnic group were higher in Appalachia 2000 than in the non-Appalachian United States.

**Table 6**  
**Persons in deep poverty, poverty, and economic comfort, by race, Appalachia and non-Appalachian United States, 2000**

	APPALACHIA				NON-APPALACHIAN UNITED STATES			
	White	Black	Hispanic	Asian	White	Black	Hispanic	Asian
TOTAL (1000s)	19,587	1,711	408	165	170,199	30,309	33,934	9,569
Percent in:								
Deep Poverty	4.9	13.0	11.5	8.7	3.3	12.5	9.7	6.3
Poverty	12.1	27.0	24.0	14.4	7.7	24.7	22.6	12.5
Comfort	68.5	48.0	46.2	68.5	78.8	52.6	48.6	72.5

NOTE: A family in "deep poverty" has an income below one-half the poverty income threshold. A family in economic "comfort" has an income more than twice the poverty income threshold. "White," "Black," and "Asian" figures do not include Hispanics. (Hispanics may be of any race.)

**Source: U.S. Census Bureau, 2000 census.**

As with the official poverty rates, rates of deep poverty were lowest in Appalachia among whites and Asians, and highest among blacks (Table 6). Hispanics occupied a middle ground. Moreover, less than one-half of blacks and Hispanics had enough income in 2000 to live in comfort (i.e., were at or above twice the poverty threshold). Clearly, racial economic inequality remains large in Appalachia, as it does in the rest of the nation. But unlike other economically

distressed regions (e.g., Indian reservations, the Mississippi Delta, or the Colonia in the lower Rio Grande Valley), poverty in Appalachia does not reflect high concentrations of disadvantaged minorities. The large majority (95 percent) of Appalachia's population is non-Hispanic white.

Among racial and ethnic minorities in Appalachia, poverty preys disproportionately on children (see Table 7). Over one-third of black children in Appalachia were poor, based on data from the 2000 census. Over 27 percent of Hispanic children were poor. High poverty rates for children are associated with adverse cognitive outcomes (e.g., school achievement) and behavioral problems, especially during adolescence; such rates are also associated with higher rates of poverty and low income when these children reach early adulthood, reflecting the intergenerational dimension of poverty. At the other end of the age distribution, elderly blacks in Appalachia also have unusually high rates of poverty in comparison with white and Asian elderly persons. Black elderly poverty rates in 2000 were roughly as high as they were for the total elderly population in the late 1960s (U.S. Census Bureau 2005c).

**Table 7**  
**Persons in poverty, by race and age, Appalachia, 2000**

		WHITE	BLACK	HISPANIC	ASIAN
Under age 18	Number (1000s)	677	191	38	4
	Percent of total	15.1	35.7	27.4	10.4
Ages 18 to 64	Number (1000s)	1,369	229	58	19
	Percent of total	11.2	22.5	22.5	16.0
Ages 65 and over	Number (1000s)	325	41	2	1
	Percent of total	11.1	26.4	16.9	12.6

NOTE: "White," "Black," and "Asian" figures do not include Hispanics. (Hispanics may be of any race.)

**Source: U.S. Census Bureau, 2000 census.**

***Family Structure and Poverty.*** Changes in family structure—especially the rise in female-headed families—have played a large role in accounting for long-term increases in poverty, especially among children (Lichter and Crowley 2004; Iceland 2003). The 2000 census revealed that 34.3 percent of female-headed families in the United States with minor children were poor (Bishaw and Iceland 2003). This figure compares with a poverty rate of 4.9 percent among the nation’s married couple families. More significantly, the largest declines in family poverty during the 1990s occurred among female-headed families with children. Nationally, poverty rates for these families dropped by eight percentage points over the decade of the 1990s. For married couple families, the drop in poverty was less than 1 percent. The slowdown in family change in the 1990s coupled with declining poverty rates among America’s most vulnerable families has had a salutary effect on overall poverty in the 1990s. Given the statistical evidence, it is perhaps unsurprising that much of the recent debate over the reauthorization of the 1996 welfare reform has centered on state efforts, as part of the Temporary Assistance for Needy Families program (TANF), to promote marriage as a family context for childbearing and child rearing.

In Appalachia, the poverty rate among married couple families was about 6.0 percent in Appalachia, compared with 4.8 percent in non-Appalachian America (Table 8, page 19). Married Appalachian couples with children, however, had slightly higher rates of poverty than those without children (7.7 percent versus 4.7 percent). And families headed by single females in the region, especially those with minor children, had exceptionally high rates of poverty—five to six times the rate of married couple families. The obvious policy implication is that efforts to promote marriage and reduce nonmarital fertility, if successful, may help reduce poverty and

keep welfare caseloads low. Critics of marriage promotion programs, however, view the growth of single-parent families as a *consequence* of economic problems and poverty, rather than as their cause. If these critics are correct, the best way to promote strong and lasting families may be to encourage the growth of good jobs that pay a living wage.

**Table 8**  
**Families in poverty, by family type, Appalachia and non-Appalachian United States, 2000**

FAMILY TYPE	APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent	Number (1000s)	Percent
ALL FAMILIES				
Married couple	300	6.0	2,419	4.8
Single male	53	15.9	533	13.4
Single female	287	29.7	3,029	26.3
WITH CHILDREN UNDER AGE 18				
Married couple	170	7.7	1,597	6.5
Single male	40	20.9	408	17.5
Single female	248	39.9	2,693	33.9
NO CHILDREN UNDER AGE 18				
Married couple	129	4.7	822	3.2
Single male	13	9.2	125	7.6
Single female	39	11.4	336	9.4

**Source: U.S. Census Bureau, 2000 census.**

The results outlined above also suggest that any explanation of persistent racial and ethnic differences of poverty cannot ignore the implications of large racial differences in marriage and unwed childbearing (Iceland 2003; Lichter and Crowley 2004). Indeed, among black families with children, only 37.9 percent were headed by married couples in 2003. The

national figure was 68.1 percent (U.S. Census Bureau 2005). Moreover, while one-third of America's children today are born outside of marriage, the figure is much higher among African Americans (i.e., nearly 70 percent). But despite sharing high rates of poverty with African Americans, nearly two-thirds of Hispanic families with children are headed by married couples. Culture may trump economics. Indeed, jobs by themselves cannot account for persistent racial differences in poverty.

But it also is true that changing family structure alone has not been responsible for higher rates of African American poverty. In Appalachia—as well as the rest of the nation—African Americans and other minorities have higher rates of poverty than whites *regardless of family type* (Table 9, page 21). For example, the poverty rate in Appalachia among black married-couple families with children was both very high and roughly 25 percent greater than the corresponding poverty rate among whites (46.4 percent versus 37.4 percent). Despite higher rates of poverty among Hispanic married couples than among other racial and ethnic groups, Hispanics had lower rates of poverty than blacks overall, in part because a much higher percentage of families were headed by married couples than “at risk” single-parent families.

### **Human Capital and Poverty**

Historically, low levels of education and chronic unemployment and underemployment have been a singular characteristic of poverty in the Appalachia region. But the educational disparity (if measured by the percentage of high school dropouts) seems to have narrowed in the 1990s. In 2000, for example, slightly less than 23 percent of Appalachia's population (age 25 and older) was a high school dropout (data not shown); the national figure was 19.6 percent (U.S.

**Table 9**  
**Families in poverty, by race of householder and family type,**  
**Appalachia, 2000**

FAMILY TYPE	WHITE		BLACK		HISPANIC		ASIAN	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
ALL FAMILIES								
Married couple	263	5.7	19	9.0	60	15.2	3	8.0
Single male	41	14.8	8	22.8	12	18.8	*	12.8
Single female	197	26.7	78	39.7	12	42.2	1	24.4
WITH CHILDREN UNDER AGE 18								
Married couple	146	7.3	12	9.8	43	17.4	2	8.3
Single male	31	19.6	6	28.2	7	23.6	*	16.9
Single female	168	37.4	69	46.4	9	48.0	1	27.1
NO CHILDREN UNDER AGE 18								
Married couple	118	4.5	7	8.0	17	9.7	1	7.4
Single male	10	8.3	2	14.6	5	12.7	*	9.5
Single female	29	10.0	9	18.7	2	16.6	*	19.2

\*Fewer than 500 families in category.

NOTE: "White," "Black," and "Asian" figures do not include Hispanics. (Hispanics may be of any race.)

**Source: U.S. Census Bureau, 2000 census.**

Census Bureau 2005b). On the other hand, a much smaller percentage of Appalachians hold bachelor's degrees—17.9 percent—than the percentage nationwide (24.4 percent).

From a strictly economic standpoint, the importance of education cannot be understated. In 2001, the percentage difference in wage rates between college and high school educated men (ages 22 to 62) was 44 percent (Danziger and Plotnick 2004). Significantly, the benefits of education have grown rapidly over the past 20 years; college educated men made only 23 percent more than high school educated in 1981. The interplay between education and migration is

important to understanding the perpetuations of poverty in the Appalachian region. For decades, Appalachia has been on the losing end of migration patterns: more people left the region than entered it, and more of Appalachia's "best and brightest" fled for better economic opportunities, leaving behind the less educated, the unemployed, and the impoverished. Between 1995 and 2000, about 25,000 more college-educated persons left Appalachia than entered it (Lichter, Garratt, Marshall and Cardella 2005). Despite the region's increase in migration during the 1990s, much of the growth was among the less educated—those lacking a college degree. In Appalachia, the common perception is that the "returns" or benefits of education are dampened by too few employment opportunities, which in turn create disincentives for communities to invest in education and for people to pursue more education. The belief among many in the region is that investing in education simply does not pay.

***Education and Poverty.*** In this section, we examine links between education, work, and poverty in Appalachia. Table 10 provides rates of poverty in 2000 for different education groups

**Table 10**  
**Persons ages 25 and over in poverty, by education, United States, Appalachia, and non-Appalachian United States, 2000**

EDUCATIONAL ATTAINMENT LEVEL	UNITED STATES		APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
Less than high school diploma	7,485	21.9	778	22.9	6,707	21.8
High school diploma only	4,971	9.7	548	10.2	4,423	9.7
Some college, no four-year degree	3,123	6.3	236	6.7	2,887	6.3
Four-year college degree or more	1,476	3.4	87	3.2	1,389	3.4

**Source: U.S. Census Bureau, 2000 census.**



in Appalachia and non-Appalachia. These data reveal the familiar poverty gradient with rising levels of education. Nationally, only 3.4 percent of college educated persons are poor, compared with a poverty rate of nearly 22 percent among high school dropouts. More significantly, the association between education and poverty is very similar in Appalachia and non-Appalachia. One clear implication—an unexpected one—is that “returns” to education in Appalachia, if measured by lower rates of poverty, are little different from the rest of the nation.

A closer look at geographic variations within the Appalachian region, however, suggests a more complex picture of educational inequality. In Table 11 (page 24), poverty rates are provided for different types of counties identified by the “Beale code.” As a typology, the Beale codes (0-9) lay along a continuum of urbanization, from population in counties with very large metropolitan cities over 1 million population to completely rural counties. Our data clearly indicate the vulnerability of the least educated groups in less densely settled parts of Appalachia. For example, in completely rural counties—those that are nonadjacent to a metropolitan area (code 9)—the poverty rate was nearly twice as large as the poverty rate in the largest core metropolitan counties (30.9 percent versus 16.8 percent). A similar geographic differential in poverty exists for high school graduates. To be sure, these data, regardless of location, show that education is strongly linked to lower rates of poverty. But significantly, the association between education and poverty is strongest in the most remote rural parts of Appalachia. The strong association does not reflect the large benefits derived from a college education in rural Appalachia (relative to urban parts), but shows instead that the consequences of low education are expressed in much higher rates of poverty.

**Table 11**  
**Persons ages 25 and over in poverty, by metropolitan status (Beale code) and education, Appalachia, 2000**

TYPE OF AREA	LESS THAN HIGH SCHOOL DIPLOMA		HIGH SCHOOL DIPLOMA ONLY		SOME COLLEGE, NO FOUR-YEAR DEGREE		FOUR-YEAR COLLEGE DEGREE OR MORE	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
METROPOLITAN								
Metro population of 1 million or more								
Central counties	45	16.8	54	8.2	27	5.4	15	3.0
Fringe counties	23	18.0	19	8.0	7	4.7	3	2.7
Metro population of 250,000 to 999,999	193	21.5	137	9.6	68	6.2	26	2.9
Metro population of fewer than 250,000	71	21.0	66	9.8	29	6.9	10	3.4
NONMETROPOLITAN								
Urban population of 20,000 or more								
Adjacent to a metropolitan area	49	21.5	40	9.5	15	6.7	4	3.1
Not adjacent to a metropolitan area	25	24.6	18	12.0	9	8.6	5	4.8
Urban population of 2,500 to 19,999								
Adjacent to a metropolitan area	130	23.1	85	10.3	32	7.1	9	3.2
Not adjacent to a metropolitan area	136	27.9	75	13.1	29	9.0	8	4.0
Rural (urban population of fewer than 2,5000)								
Adjacent to a metropolitan area	31	26.0	19	11.6	6	7.3	2	4.2
Not adjacent to a metropolitan area	62	30.9	30	14.9	10	9.8	2	4.2

**Source: U.S. Census Bureau, 2000 census.**

**Work and Poverty.** Employment—or more precisely, the lack of employment—is inextricably associated with poverty. Table 12 (page 25) shows that married persons in the United States who work full-time have a rate of poverty that is virtually nonexistent—less than 2 percent. For this group of workers, patterns of poverty in Appalachia and non-Appalachian areas

are similar. Poverty rates were much higher (nearly 14 percent) among married persons in Appalachia who are not in the labor force. That the poverty rate is not higher in this case reflects the fact that most married persons have a second earner in the family—their spouse. Indeed, when we restrict our analyses to single persons, the rates of poverty among nonworkers, especially females, are considerably higher. For single women working full-time in Appalachia, the poverty rate is nearly 10 percent, roughly equal to the national average. If these women are not working full-time, their poverty rates exceed 40 percent. Clearly, employment is a defense against poverty, especially in families with one worker.

**Table 12**  
**Families in poverty, by family type and employment status of householder,**  
**Appalachia and non-Appalachian United States, 2000**

FAMILY TYPE	APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent	Number (1000s)	Percent
MARRIED-COUPLE FAMILY				
Householder worked full time	52	1.8	476	1.6
Householder worked part time	82	8.9	814	7.8
Householder did not work	166	13.9	1,130	11.3
SINGLE MALE-HEADED FAMILY				
Householder worked full time	8	4.6	90	4.0
Householder worked part time	19	25.4	209	20.8
Householder did not work	26	32.3	235	32.1
SINGLE FEMALE-HEADED FAMILY				
Householder worked full time	35	9.6	363	7.5
Householder worked part time	121	44.4	1,300	36.9
Householder did not work	131	40.2	1,366	43.9

**Source: U.S. Census Bureau, 2000 census.**

It also is evident from our statistical analysis that the large racial differences in poverty *do not simply reflect racial differences in work effort*. Among married persons, blacks and Hispanics experienced poverty rates that were substantially higher than rates among whites and Asians who are not in the labor force (see Table 13). Among married Hispanics in Appalachia, nearly 40 percent of those not in the labor force were poor. Hispanic women, especially mothers,

**Table 13**  
**Families in poverty, by race, family type, and employment status of householder, Appalachia, 2000**

FAMILY TYPE	WHITE		BLACK		HISPANIC		ASIAN	
	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent	Number (1000s)	Percent
MARRIED-COUPLE FAMILY								
Householder worked full time	45	1.7	2	2.1	3	7.5	1	2.4
Householder worked part time	71	8.5	5	11.3	4	20.5	1	11.2
Householder did not work	148	13.2	12	24.3	3	38.4	1	39.4
SINGLE MALE-HEADED FAMILY								
Householder worked full time	6	4.2	1	7.2	1	8.8	*	2.8
Householder worked part time	15	25.2	2	29.8	1	20.2	*	16.9
Householder did not work	20	29.6	4	43.4	1	61.3	*	53.8
SINGLE FEMALE-HEADED FAMILY								
Householder worked full time	23	8.0	11	15.3	1	16.7	*	4.3
Householder worked part time	84	41.9	32	52.0	2	51.6	*	28.9
Householder did not work	90	35.5	35	56.7	2	69.0	*	57.7

\*Fewer than 500 families in category.

NOTE: "White," "Black," and "Asian" figures do not include Hispanics. (Hispanics may be of any race.)

**Source: U.S. Census Bureau, 2000 census.**

have very low educational levels and employment rates. Perhaps more than any other racial or ethnic group, Hispanic married women depend on the incomes of their husbands, who unfortunately typically work at low-skill, low-wage jobs. Among African Americans, in contrast,

the comparatively high rate of poverty among married persons (24.3 percent) reflects employment related problems. Blacks are much more likely than whites to be “discouraged workers,” i.e., they stop looking for employment because jobs are scarce or the quality of the job is poor.

Among single black or Hispanic women working full-time, poverty rates are quite low, but still roughly double those observed among whites and Asians. For single women not in the labor force, minority women had exceptionally high rates of poverty, rates that were well in excess of the rates among their white and Asian nonworking counterparts. The poverty rates among black and Hispanic single women not in the labor force were 57 and 69 percent, respectively. These are high rates of poverty by any standard.

***Public Assistance among the Poor.*** Among the Appalachian poor, 44.5 percent received cash public assistance in 2000. Perhaps surprisingly, the majority of Appalachia’s poor did not receive cash assistance through TANF. In contrast, the trend differs for other federal assistance programs. Other research in this series shows that per person payments for food stamps and Supplementary Social Security Income (SSI) were higher in Appalachia than the United States in 2000 (Black and Sanders 2004). Further, Appalachia experienced much higher growth in its use of Social Security Disability Insurance (SSDI): While the use of this program increased 12 percent in the United States as a whole, the use in Appalachia increased 20 percent (Black and Sanders 2004). A slight majority of poor Appalachian blacks—and half of poor blacks outside of Appalachia—received welfare income (Table 14, page 28). The overall conclusion is clear: A large share of poor people do not rely on government cash handouts. These figures belie the conventional wisdom that the poor—especially in chronically depressed regions like

Appalachia—depend heavily over government assistance to make ends meet. These results suggest otherwise.

**Table 14**  
**Persons in poverty who received any public assistance, by race, Appalachia and non-Appalachian United States, 2000**

RACE	APPALACHIA		NON-APPALACHIAN UNITED STATES	
	Number (1000s)	Percent of poverty population	Number (1000s)	Percent of poverty population
White	290	43.4	1,305	32.8
Black	54	51.3	968	50.0
Hispanic	4	44.6	586	45.3
Asian	1	22.4	93	28.8

NOTE: “White,” “Black,” and “Asian” figures do not include Hispanics. (Hispanics may be of any race.)

Source: U.S. Census Bureau, 2000 census.

## Discussion and Conclusion

Appalachia as a region has come a long way economically since President Johnson declared his “War on Poverty” in West Virginia in 1964. Indeed, as our analysis suggests, the 1990s have been a watershed period for the region. Poverty rates declined faster in Appalachia during the 1990s than they did in the rest of the nation. More significantly, some of the fastest declining poverty rates in Appalachia were experienced in counties and among populations that historically have been at the bottom of the economic ladder. These counties included the historically impoverished counties in the Central Appalachian region; isolated rural areas; and economically distressed counties (as defined by the Appalachian Regional Commission).

Moreover, Appalachia's disadvantaged populations—especially racial and ethnic minorities, children, and single family heads—now have rates of poverty today that are remarkably similar to the rest of the nation. Clearly, the case for economic exceptionalism in Appalachia is more difficult to make in 2000 than in previous decades.

Indeed, our results indicate that the 1990s was a period of convergence in patterns of poverty between Appalachia and the nation. At the same time, our results reinforce common notions about the importance of education and work in reducing poverty in Appalachia and elsewhere. We find little evidence that education “doesn’t pay” in Appalachia; in fact, poverty rates are not only very high among the least educated Appalachians, but these rates often exceeded poverty rates for their counterparts outside the region. Nationally, there also is the common perception that poverty results from the bad choices of disadvantaged people (including many minorities) regarding their decisions to become unwed parents or to divorce. Our results suggest that family change in Appalachia—an overwhelmingly white, native-born population region—also has been inextricably linked to recent poverty trends. Poverty rates among single mothers are very high in Appalachia.

On balance, our results suggest that the national policy prescriptions to ending poverty, including welfare reform policies that emphasize work and healthy marriages, may also be more applicable than ever before in Appalachia. Whether further reductions in poverty can be achieved, however, is uncertain. Recent labor market conditions, growing inequality in income and wealth, and the lack of political will to effect new government anti-poverty policies all suggest that poverty in America—and in Appalachia—is not likely to be eliminated anytime soon (Danziger and Gottschalk 2004).

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